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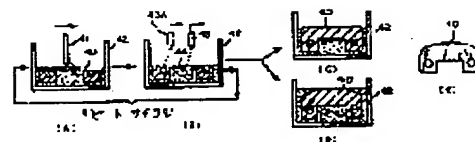
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(54) THREE-DIMENSIONAL PRINTING TECHNIQUE

(57)Abstract:

PURPOSE: To rapidly form a preform by depositing a first layer of a powder material on a confined region, forming a first layer of powder material coated and coupled with a binding material on a selected region, repeating the step by selected number to form a selected continuous layer, and removing an unbonded powder material.

CONSTITUTION: A binder is already deposited from a powder distributing head 41, and a powder layer is deposited on a layer in a previously formed form 24. Then, a binder material is printed from a binder jet head 43, and a next layer of a bonded powder article is formed. Such an operation is repeated at each continuous layer. When a final bonding layer is printed, excess unbonded powder is removed. When each layer is placed down, the layer is cured or at least partly cured, but after a desired final component shape article is formed to complete a step of forming a layer, the foam or a content is heated at a suitable selected temperature according to an application, and bonding of the powder particles is further accelerated.



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